

ESCAPE GAME

THE BOX OF TRUTH

- critical thinking
- media literacy
- teamwork
- manipulative techniques
- disinformations
- fact-checking

Teacher's Guide

Kozárová et al.

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Table of Contents

About the Project

Methodological Framework

Thematic Areas

1. Critical Thinking

2. Media Literacy

3. Digital Literacy (including Data Encryption in the Online Environment)

4. Communication and Social Competences

How to Use This Methodological Guide

Methodological Procedure

Escape Game Materials

References

About the project

The methodological guide for the escape game titled The Box of Truth was developed within the KEGA project 017UKF-4/2024. The project is titled "Social Determinants of Critical Thinking and Their Reflection in the Innovation of Media Literacy Teaching at Universities." The project focuses on innovating Digital Literacy courses in schools. It addresses how the social environment impacts critical thinking. The main emphasis is on the ability to think critically when engaging with online media content. The project aims to explore a topic that has received limited research attention and methodological development: the determinants affecting critical thinking, especially those related to the social environment.

Only a few educational and research initiatives in Slovakia currently address the project's focus: how the social environment influences critical thinking about online media messages. The project offers a new perspective on factors shaping critical thinking, with a particular focus on social and environmental factors. It also reflects on the problem of de-journalization in the media environment. This has led to the dissemination of media messages—especially online—without applying journalistic standards of accuracy, objectivity, and other professional norms.

Methodological Framework

This methodology is designed to develop key competencies that help students navigate today's information and digital environment safely and responsibly. The primary focus is on critical thinking. This enables students not only to receive information but also to analyze, evaluate, and critically verify it. Critical thinking is closely linked to media literacy. Media literacy helps students understand media content, recognize manipulation, and distinguish verified information from disinformation. Digital literacy further supports the safe and effective use of digital technologies for searching, processing, and verifying information.

Communication and social competencies are equally emphasized. The ability to discuss, argue, and collaborate is crucial for verifying information and solving problems. The topics are integrated to give students a comprehensive understanding of disinformation, both in theory and in practice. Through the escape game, they can apply the knowledge they have gained in class.

The methodology also covers manipulative techniques and the identification of disinformation using verified fact-checking sources. It includes the practical analysis of fake images that students may encounter online. These skills help encourage a critical, responsible, and independent approach to information in everyday life.

Methodological Framework

Basic Information about the Methodology

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Target Group:

- Primary School – Grades 8 and 9
- Secondary School – All grades

Educational Area / Subjects:

- Civics, Media Education, Slovak Language, English Language, Informatics, Ethics

Time Allocation:

- 45 minutes – lecture-based instruction
- 45 minutes – escape room implementation

Working Methods:

- Group work, cooperative learning, experiential learning, and gamification

Methodological Framework

Escape game in education

Escape rooms represent an innovative and experiential form of learning that incorporates elements of gamification, problem-solving, and collaboration. They are designed to allow students to work in teams to solve a series of interactive tasks and puzzles within a time limit, aiming to “escape” or achieve a specific objective. This type of activity is becoming increasingly popular in educational practice because it effectively promotes active student engagement and connects theoretical knowledge with practical application (Sidekerskienė & Damaševičius, 2023).

According to a systematic review by Fotaris and Mastoras, educational escape rooms can significantly enhance critical thinking, collaboration, problem-solving, and soft skills, as participants need to analyze information, develop strategies, and communicate their ideas within a team to succeed in the game. Moreover, this type of activity has been shown to increase motivation for learning and encourage active student participation, which contributes to better retention and understanding of the material compared to traditional teaching methods, as this approach is enriched with an emotional experience (2019).

Methodological Framework

Brief description of the Escape Room: The Box of Truth and its benefits

The escape room is thematically centered on uncovering misinformation. It fosters critical thinking, enhances media and digital literacy, and strengthens students' communication and social competencies. The game requires students to collaborate in groups to solve a sequence of tasks that simulate real-world scenarios. Tasks include identifying manipulative techniques, fact-checking through verified sources, analyzing online content, and detecting fake images. Before participating, teachers receive instructional materials. These materials introduce students to established procedures for detecting misinformation, utilizing fact-checking portals, decoding manipulative techniques, and verifying image authenticity.

Throughout the game, students develop skills in searching for information. They also learn to critically evaluate and interpret information, and to communicate their findings within a team. The activity also includes reflection on how misinformation spreads in digital environments. The game's structure ensures that each task supports the development of soft skills, such as decision-making, collaboration, and problem-solving. This approach fosters an authentic learning environment and integrates theoretical knowledge with practical application in students' daily lives.

This methodology benefits students by engaging their cognitive abilities and giving them practical tools. These tools help them process information safely and critically, an essential skill set in the digital era. As a result, the approach fosters a responsible, informed attitude toward media content and enhances students' capacity to navigate the complex information landscape.

Methodological Framework

Educational Objectives

Learning objectives	Description	Connection to the escape game
Cognitive objectives (Knowledge)	<ul style="list-style-type: none">-The student is able to understand the concept of disinformation, hoax, manipulation, and fake photographs.-The student is able to recognize the characteristics of unreliable information.-The student is able to use fact-checking websites.	Students complete tasks in which they analyze texts and photographs, verify facts, and identify manipulation.
Affective Objectives (Attitudes)	<ul style="list-style-type: none">-The student is aware of the responsibility associated with sharing information.-The student develops a healthy skepticism toward media content.-The student supports an ethical attitude in the online environment.	The game simulates situations where students' decisions have consequences, encouraging reflection and responsibility.
Competency Objectives (Skills)	<ul style="list-style-type: none">-The student is able to analyze media content.-The student is able to work in a team and justify their decisions.-The student acquires practical skills for verifying information.	Students solve team-based tasks under time pressure, discuss their ideas, and identify fake news or manipulated photographs.

Methodological Framework

Competencies

Competence	Description	Connection to the escape game
Critical thinking	Student is able to evaluate information, analyze its reliability, and draw conclusions	The game stimulates analysis and interpretation of content and the consequences of decisions
Media literacy	Student is able to recognize media formats, manipulation techniques, and uses verification tools	Tasks focus on identifying manipulative elements and fact-checking
Digital literacy	Student is able to effectively and safely use digital technologies when searching for and processing information	Students use online resources, fact-checking, and verify digital content
Communication and social competences	Student practises discussion, collaboration, argumentation, and knowledge-sharing within a team.	The game is team-based, supporting cooperation and communication among students
Problem solving	Applies knowledge and skills in specific situations, plans procedures, and reflects on decisions	Students solve complex puzzles and tasks simulating real-life situations related to disinformation

Methodological Framework

Alignment with the State Educational Program

The methodology aligns with the State Educational Program for primary and secondary schools, supporting key skills like critical thinking, media and digital literacy, and communication. It is flexible for different subjects and grades, and suits students' ages and abilities.

Cross-Curricular Topics

The methodology directly addresses several cross-curricular themes of the State Educational Program. It particularly covers:

Media Education

Escape room activities focus on how media work, analyzing media content, recognizing manipulation and disinformation, and encouraging responsible behavior. Students learn to verify facts using tools and reflect on the media's impact on people and society.

Personal and Social Development

The escape room builds cooperation, communication, sound arguments, and respect for others' views. Students work in teams to divide tasks, solve problems, and make decisions in a set time. This develops their social skills, responsibility, and self-reflection.

Methodological Framework

Alignment with the State Educational Program

Cross-Curricular Links

The methodology integrates multiple school subjects, fostering a comprehensive, interdisciplinary approach to learning. It particularly suits the following subjects:

- **Civics / Social Sciences** – topics related to democracy, media, and civic responsibility
- **Slovak Language and Literature** – working with texts, argumentation, and comprehension of meaning
- **Informatics / Digital Technologies** – safe use of the internet and working with digital resources
- **Ethics** – values, responsibility, and behavior in the online environment
- **English Language** – use of the English-language version of the escape room

By connecting these subjects, the methodology strengthens students' critical thinking and allows teachers to address disinformation in everyday lessons.

Methodological Framework

Alignment with the State Educational Program

Primary school (Grades 8–9)

Area of the School Educational Program	Topic/Competency	Connection to the escape game
Media Education (cross-curricular topic)	Critical reception of media content	Students analyze news, identify basic signs of disinformation and manipulation
Media Education	Safe behavior in the online environment	Tasks focused on recognizing scams, fake websites and messages
Personal and Social Development	Cooperation and communication	Team-based problem solving, role distribution, joint decision-making
Civics	Individual responsibility in society	Discussion about the consequences of spreading unverified information
English Language and literature	Working with text and understanding meaning	Text analysis, distinguishing facts from opinions
Informatics	Basics of digital literacy	Use of digital tools and verification of information sources

Methodological Framework

Alignment with the State Educational Program

High school (All grades)

Area of the School Educational Program	Topic / Competency	Connection to the escape game
Media Education (cross-curricular topic)	Critical reception of media content and information	Identification of advanced manipulation techniques and disinformation
Media Education	Verification of information and sources	Working with fact-checking websites and comparing sources
Personal and Social Development	Argumentation and discussion	Defending solutions, presenting opinions in a team
Civics / social sciences	Democracy, public opinion	Analysis of the impact of disinformation on society and democracy
English Language and literature	Critical reading and argumentation	Distinguishing facts, opinions, and manipulation in a text
Informatics / digital technologies	Digital security and working with information	Verifying digital content, recognizing fake photographs
Ethics	Ethical aspects of online behavior	Reflection on the moral consequences of spreading disinformation

Methodological Framework

Higher Education (Non-media Study Programs)

The escape room methodology can be applied in non-media study programs to help develop universal key competencies essential for navigating the contemporary information environment.

In this context, the methodology is particularly suitable for courses that emphasize:

- critical thinking,
- academic skills and source evaluation,
- digital literacy,
- ethics and social responsibility,
- online safety.

The escape room methodology helps students from diverse disciplines—such as technical, economic, healthcare, and teacher-training fields—critically evaluate information relevant to academic and professional contexts. It also supports their ability to identify misinformation, use reliable sources, and make informed decisions.

As an experiential learning activity, the escape room increases student engagement and enables students to apply theoretical knowledge in a safe, interactive environment. In higher education, implementation may involve more complex tasks, deeper reflection, and structured discussions, supporting transfer of knowledge to academic and professional practice.

Methodological Framework

Higher Education (Media Study Programs)

The escape room methodology can also be used in higher education for media-oriented study programs, such as journalism, mass media communication, marketing communication, and media studies. In these settings, it serves as a supplementary teaching tool to support the development of advanced analytical and interpretive skills in media content analysis.

The escape room lets students apply theoretical knowledge from media studies—including theories of media manipulation, framing, agenda-setting, and propaganda—in simulated settings. It also fosters their ability to identify complex forms of misinformation, analyze information sources, and consider the ethical dimensions of media production and distribution.

This methodology is especially appropriate for courses that focus on:

- media literacy and critical media analysis,
- journalistic practice and fact-checking,
- digital communication and online environments,
- media ethics and the social responsibility of the media.

Implementation in higher education centers on encouraging students to discuss, reflect, and interpret independently, with instructors guiding the process. The key takeaway is that students are active participants, and the instructor facilitates their learning.

1. **Critical Thinking**

Defining Critical Thinking

Critical thinking is the use of reasonable, reflective thought to determine what to believe or how to act, grounded in the evaluation of evidence and arguments. Rather than simply rejecting information skeptically, critical thinkers systematically assess and justify conclusions (Ennis, 1985). For example, when reading a news article that makes a controversial claim, a critical thinker assesses the article's sources, considers opposing viewpoints, and looks for supporting evidence before judging the article's reliability. Expert consensus, as articulated in the Delphi Report, defines critical thinking as purposeful, self-regulatory reasoning that involves interpreting information, analyzing data, evaluating arguments, drawing conclusions, and explaining those conclusions (Facione, 1990).

Components of critical thinking

Critical thinking consists of several interrelated skills, including the following:

- the analysis of information,
- the evaluation of sources,
- the recognition of argumentative and logical errors,
- the formulation and defense of individual conclusions,
- and reflection on personal biases (Facione, 1990; Halpern, 2014).

Halpern emphasizes that critical thinking is a transferable skill. It applies across many domains, from academia to daily life. For instance, students use critical thinking in class to evaluate viewpoints or create strong arguments. They also use it personally, such as deciding how to manage their time or checking the reliability of online information.

1.

Critical Thinking

Examples of critical thinking

Critical thinking in working with media

An individual using critical thinking when reading media content:

- distinguishes between fact and opinion,
- evaluates the credibility of sources,
- identifies emotional or manipulative language,
- compares information from multiple sources. (Potter, 2019)

This type of critical thinking is the foundation of media literacy and protection against disinformation.

Critical thinking in problem-solving

When solving a problem, a critical-thinking individual:

- formulates hypotheses,
- considers alternative solutions,
- evaluates the consequences of each option,
- revises conclusions based on new information. (Halpern, 2014)

This approach is typical of problem-based learning and experiential education (e.g., escape rooms).

Critical thinking in the context of disinformation

In an environment of information chaos, individuals use critical thinking to identify false or misleading claims:

- false or misleading claims,
- manipulative narratives,

1. **Critical Thinking**

- emotional appeals instead of argumentation,
- and the hidden interests of content creators. (Wardle & Derakhshan, 2017)

Wardle and Derakhshan emphasize that critical thinking is a key tool for addressing so-called information disorder.

Characteristics of critical thinking in an educational context

In pedagogy, critical thinking is understood as a learning objective rather than a by-product of learning. It includes the student's ability to:

- ask questions,
- challenge seemingly obvious claims,
- argue based on evidence,
- reflect on one's own thinking. (Paul & Elder, 2006)

Paul and Elder point out that without the systematic development of critical thinking, learning becomes a mechanical acquisition of knowledge rather than a deeper understanding.

2.

Media literacy

Definition of media literacy

Media literacy is the ability to understand, analyze, evaluate, and creatively use media and their content in various forms of communication. By acquiring media literacy, individuals develop skills to better navigate information, resist manipulation, and contribute constructively to societal discussions. It includes not only recognizing different types of media (such as television, the internet, and social networks) but also the ability to approach information critically, distinguish facts from opinions or manipulation, and actively create media content. (Ambrózová et al., 2025)

According to UNESCO, individuals acquire media literacy as they learn to evaluate, interpret, and create media products in everyday life. This process strengthens their ability to think critically about media and its content. (UNESCO, 2013)

In Slovakia, experts consider media literacy a part of broader civic literacies. Individuals understand media, critically evaluate media content, and consciously create it themselves, which provides opportunities for safe and responsible functioning in the digital environment. (Učíme – methodological portal, 2025)

Components of media literacy

Media literacy includes various competencies and skills that help individuals navigate the media environment:

a) Access to media

The ability to recognize and search for different types of media content – texts, videos, news, or advertisements.

2.

Media literacy

b) Analysis and evaluation of content

Critical evaluation of media includes identifying facts, opinions, manipulation, and advertising techniques, as well as assessing the credibility of sources. (Učíme – methodological portal, 2025)

c) Interpretation and meaning-making

This refers to the ability to understand the deeper meaning of media messages, their purpose, and context—for example, how and why certain information is presented in a specific way. (UNESCO, 2013)

d) Media content creation

For a competent media consumer, it is also important to create their own media outputs—texts, videos, posts, or presentations – that are ethically, linguistically, and well considered in terms of content. (Critical Media Project, 2017–2026)

These components may overlap and mutually support one another in developing critical thinking and activities that lead to a genuine understanding of media.

Examples of media literacy in practice

- *Distinguishing between facts and opinions:* a student can identify in an article what is objective information and what is the author's personal opinion.
- *Source verification:* a student checks whether a news item comes from a credible media outlet—for example, by examining the website, the publication date, and the authorship of the post.

2.

Media literacy

- *Detecting manipulation*: a student notices when an advertisement is disguised as editorial content or when a headline misrepresents the story's reality.
- *Media content creation*: students create short videos or blogs presenting their perspectives on a current topic. (Media Literacy, 2025)

These activities support creativity, responsible use of media channels, and the development of digital competencies.

Media literacy in the educational context

Media literacy is today an inseparable part of education, as the media environment influences the everyday lives of both students and adults. The aim of educational programs is for students to learn to:

- approach information critically and distinguish credible sources from unverified ones,
- understand the mechanisms of media content creation and dissemination, and
- communicate ethically and interact responsibly in the digital space.

In the school context, media literacy serves as a tool for preventing disinformation, manipulative content, and fake news, while also helping students develop the competencies needed for active and informed citizenship. (Učíme – methodological portal, 2025)

3.

Digital literacy

Definition of digital literacy

In the academic context, digital literacy is considered a set of cognitive, technical, and social competencies that enable individuals to navigate digital environments effectively, safely, and critically. It includes the ability to search for, evaluate, interpret, and communicate information through digital tools and media. According to a systematic literature review, digital literacy is an essential skill for both teachers and students to address the challenges of digitalization in education and society. (Fernández-Otoya et al., 2024)

In pedagogical literature, digital literacy is understood as a necessary prerequisite for the development of critical thinking and media literacy, which are key in identifying disinformation. The European Commission emphasizes that a digitally literate individual can recognize manipulative content, verify sources, and understand the mechanisms of information dissemination in digital media. (European Commission, 2022)

Digital literacy serves as a fundamental framework for educational activities focused on detecting disinformation, as it combines technological skills with the analytical and ethical dimensions of information work.

Components of digital literacy

According to the DigComp reference framework and national educational programs, digital literacy includes several interconnected components, including:

1. Information and data literacy – the ability to search for, analyze, and critically evaluate digital information.

3. **Digital literacy**

2. Communication and collaboration in digital environments – the effective use of digital channels for communication and teamwork.
3. Digital content creation – creating and sharing digital materials with respect for copyright and ethical principles.
4. Digital safety – recognizing threats, protecting personal data, and behaving safely online.
5. Problem-solving and critical thinking – applying digital tools to solve complex tasks.

These components complement one another and together form a comprehensive digital literacy competence. (Učíme.sk, 2025; zakladnezrucnosti.sk, 2025)

Encryption and its significance

Encryption is the process of transforming readable data (plaintext) into an unreadable form (ciphertext) using algorithms and encryption keys to ensure confidentiality and protect it from unauthorized access. In the context of digital literacy, understanding the basic principles of encryption is important for the safe use of technology, protecting personal data, and preventing cyber threats. (ITnetwork.sk, 2025)

Examples of historical and simple ciphers

The Caesar cipher is one of the oldest and simplest examples of a monoalphabetic substitution cipher, in which each letter of the plaintext is replaced by another letter shifted by a fixed number of positions in the alphabet. This type of transformation represents the basic principle of substitution,

3. **Digital literacy**

where the order of letters in the alphabet is shifted using a key, creating a so-called “cipher alphabet.” During encryption, modular arithmetic ensures that the shift “wraps around” the end of the alphabet and returns to the beginning, guaranteeing that each letter has a unique encrypted equivalent. (Paar & Pelzl, 2018) In the context of digital literacy, it serves as a didactic example of the basic principles of encryption and decryption, illustrating how data can be transformed using a mathematically defined key to conceal its original form.

The book cipher is a historical cipher in which a pre-agreed text or book is used as the key, containing a sequence of letters, words, or other elements that serve as reference points for encoding and decoding a message. Instead of a standard substitution table, this system uses specific positions in the key text to determine the location of individual elements of the plaintext. In a simpler version of the book cipher, each word or letter of the original text is replaced by a numerical code indicating its position in the key text—typically the page number, line, and position of the word or letter within the book. Successful decoding, therefore, requires that both the sender and the receiver use exactly the same book and edition; otherwise, interpreting the codes would not be possible. (Mammadov, 2023)

These simple examples allow students to understand the fundamental principles of information concealment and manipulation, which are essential for their digital security and critical thinking.

Examples of digital literacy in practice

Digital literacy is demonstrated in real-life situations such as:

3. **Digital literacy**

- safe searching and evaluation of information,
- critical analysis of digital content,
- effective use of communication tools,
- creation and sharing of digital content,
- recognition and prevention of digital threats,
- use of protective mechanisms such as data encryption and strong passwords.

These skills are essential for professional, social, and civic functioning in the digital world. (Economic Encyclopedia, 2025)

Digital literacy in the educational context

In the school environment, digital literacy is part of the key competencies of pupils and students, as it supports their ability to:

- use technological tools rationally,
- critically evaluate online content,
- use digital environments for learning and collaboration,
- recognize risks associated with disinformation and cyber threats.

Education in digital literacy is, therefore, an integral part of 21st-century curriculum changes and supports lifelong learning. (Učíme.sk, 2025; European Commission, 2025)

4. Communication and social competences

Definition and delimitation of communication competences

Competences represent a set of knowledge, skills, attitudes, and abilities that enable an individual to perform certain work effectively and appropriately in a variety of contexts. Educational and pedagogical literature distinguishes between competence as capability and competency as the ability to apply the capability in practice. Competency is the consequence of a complex integration of knowledge, skills, and attitudes that an individual acquires through both formal and informal education and experience. (Šeben -Začková, 2023)

Communication competences

Communication competences refer to an individual's ability to communicate effectively, appropriately, and purposefully, in both verbal and non-verbal forms across different situations. They include the ability to:

- clearly and appropriately express one's thoughts,
- actively listen to a communication partner,
- analyze and react to verbal as well as non-verbal signals,
- adapt communication to the context, purpose, and social norms. (Spitzberg & Cupach, 2025)

According to Spitzberg and Cupach (1984), communication competence is defined as a combination of knowledge, motivation, and skills that enable an individual to communicate effectively (achieving communication goals) and appropriately (in accordance with the social norms of the situation). (2025)

4. Communication and social competences

Definition and delimitation of social competences

Communication competences do not represent only an individual's language proficiency, but also a complex set of social and psychological dimensions of interpersonal interaction. Their essence lies in the ability to engage in communication effectively and appropriately, interpret meanings, and regulate one's own communicative behavior in accordance with context and social norms. In pedagogical practice, these competences are particularly evident through active listening, argumentative skills, constructive participation in discussions, and effective information sharing in group collaboration.

Social competences

Social competencies are the abilities necessary for effective interaction with others in social situations. They are an important part of personal development and include the ability to:

- establish and maintain interpersonal relationships,
- cooperate in a team,
- take responsibility for shared tasks,
- manage conflicts and social tension,
- demonstrate empathy and respect towards others. (Social Competences in Managerial Practice, 2023)

Social competencies are widely applied in cooperative forms of learning and team-oriented educational activities. In situations such as an educational escape room, students are required to collaborate, coordinate individual activities, and communicate effectively in order to achieve a common solution to the given task.

4. Communication and social competences

Such a structured educational environment fosters the development of the ability to take responsibility within a team, respect diversity of opinions, and actively contribute to achieving a collective goal.

The importance of communication and social competencies in teamwork

In team collaboration, such as an escape room activity, communication is crucial for coordinating activities, sharing information, and making quick decisions in a dynamic environment. Empirical research shows that the quality of communication significantly affects team performance—better communication leads to higher task completion efficiency and the successful achievement of shared goals. (Marlow, Lacerenza, Paoletti, Burke & Salas, 2018)

In an escape room, students are exposed to situations that require rapid and effective information sharing, task prioritization, and team coordination, which naturally support the development of communication and social competencies. Using these competences builds trust among team members, reduces conflicts, and improves team dynamics, creating an environment that supports effective cooperation and collective problem-solving.

How to use this guide

Methodological procedure

Material and technical requirements

- **Optional:** before implementing the escape room activity itself, the teacher may dedicate one lesson to a lecture on the topic **Digital and Media Literacy**, which is presented in the section: **Materials for the Escape Game – Lecture**
- **Escape room:** teacher resources – if necessary, notes regarding the solutions to the puzzles (see appendices)
- materials for students – large envelope, 4 small envelopes with printed puzzles, boxes for a 4-digit code with a QR code inside
- technical requirements (PC, mobile phone, internet connection, printing, paper)
- preparation of the classroom – dividing students into smaller groups of max. 6 students (groups are created according to the number of students)

Organizational instructions for the teacher

- recommended number of students in the class – max. 30, while students are divided into smaller groups of up to 6 students (may be fewer/more depending on the number of students in the class)
- time schedule of the activity – 45 min. theory (if the teacher deems it appropriate), 45 min. escape room activity
- teacher's role during the activity (facilitator, observer)

How to use this guide

Methodological procedure

1. Introductory motivation:

This may take place at the end of the previous lesson, where students focused on theory, or briefly at the beginning of the lesson, to:

- get students into the topic,
- short discussion / questions (examples):



1. Do you remember any article or social media post that was incorrect or misleading?
2. Do you think sharing articles online can have consequences? If yes, what kind?
3. How do you feel when you find out that you have shared something that turned out to be false?
4. Why do you think it is important to verify information before sharing it?
5. What would convince you that an article or image is truthful?
6. What signs in media content would alert you that the information may be misleading?
7. How would you proceed if you and your team had to determine whether information is true?
8. How would you handle a situation where a team member has a different opinion about what is true?
9. Do you think it is easy to distinguish between true and false information? Why or why not?
10. What interests you most about how disinformation is created and spread?

How to use this guide

Methodological procedure

2. Instructions for the escape room

Explanation of rules for students:


- “Now, in your group, you will take on the role of journalists working in a real newsroom called StopHoaxPress. Your editor-in-chief has traveled abroad for a conference and has received a threatening email from a hacker. You will watch and listen to their video message to better understand the situation. After that, you will solve a series of tasks in which you will independently uncover disinformation, verify facts, and examine manipulation techniques. Your team will need to work together and use all your skills in practice. In front of you, you have 1 large envelope and a box with a four-digit code. Your task will be to solve five puzzles from the large envelope. four envelopes marked with a question mark  contain puzzles from which you will obtain numbers. The last, fifth envelope marked with a padlock  contains a puzzle based on which you will determine the order in which the numbers must be arranged in order to open the locked box.”
- Safety and organizational instructions –
- “Do not cut or tear anything. Use a notebook or a clean sheet of paper for taking notes.”
- After these instructions, play a short video from this link:

<https://www.youtube.com/watch?v=3MYO8bVp-Xw>

How to use this guide




Methodological procedure


3. Implementation of the escape room activity

Description of individual tasks: It is not important which puzzle the students start with, as the resulting numbers will be arranged only according to the correctly decoded instruction in the final task marked with a padlock. 

Each puzzle is accompanied by a hint card that guides students to the correct answer.

Individual puzzles have the following titles:

- **True or false?** 
- **Hunting for the source** 
- **Manipulation techniques** 
- **Fake photos** 

- **Encryption** 

True or false? (9) 

Brief description of the puzzle

Students work with six short articles containing a headline and a stated source. Their task is to identify one false article based on content analysis, source credibility, and linguistic features. The false article contains a hidden number within the text, which serves as a code to progress in the escape room activity. Students are provided with a hint card containing instructions and guidance.

How to use this guide

Methodological procedure

Objectives of the task

- Develop students' critical thinking and ability to distinguish between true and false information.
- Strengthen students' media literacy, especially in evaluating source credibility and analyzing headlines, content, and language in articles.
- Encourage students to argue and engage in team discussion when deciding whether information is truthful.
- Help students understand that disinformation can appear credible and often contains subtle, manipulative elements.

Expected student reactions

- Expect students to focus mainly on headlines or search for obvious mistakes or extreme statements at first.
- Anticipate uncertainty or differing opinions within groups when choosing the false article.
- Students may make quick decisions without a deeper analysis of the source or its content.
- Observe that, after identifying the correct article, students often experience an "aha moment" when realizing which element was crucial (source, wording, missing context, emotional language, etc.).

Teacher tips

- Do not intervene immediately if students disagree—facilitating discussion is part of the learning objective.
- In summary, the key takeaways for students are to carefully analyze articles beyond the surface, recognize subtle

How to use this guide

Methodological procedure

- indicators of credibility or manipulation, actively engage in group discussions, and reflect on which clues were crucial for distinguishing true from false information.
- Instead of providing a direct answer, guiding questions should be used, for example:
 1. "How would you describe the source of this article?"
 2. "Is the language of the article more informational or emotional?"
- If students identify the incorrect article, do not confirm it directly. Instead, encourage them to verify their decision according to the instructions on the hint card.

Hunting for the source (6)

Brief description of the puzzle

Students work with six cards containing statements and QR codes that redirect them to fact-checking websites (Snopes.com or AFP Fact Check). Each card is labeled with a number from one to six. The students' task is to identify one false statement and obtain the number of the corresponding card, which serves as a code for progressing in the escape room activity. Students are provided with a hint card containing instructions for the task.

Objectives of the task

- Develop the ability to verify information using credible sources.
- Strengthen media and digital literacy, especially the use of fact-checking platforms.

How to use this guide

Methodological procedure

- Lead students to understand the importance of verifying claims before accepting or sharing them.
- Support collaboration and group discussion when making decisions.

Expected student reactions

- At first, students may try to make decisions based on their own prior knowledge without using the QR codes.
- Uncertainty may arise when interpreting fact-checking results (e.g., “misleading”, “partly false”).
- Discussions often arise over what exactly counts as a false statement and whether the fact-checking platform’s evaluation is clear-cut.
- After identifying the correct statement, students show greater confidence and a better understanding of the verification process.

Teacher tips

- Do not intervene if students are actively working with the fact-checking platform and engaging in discussion.
- Provide support only if students are not using the QR codes or rely solely on intuition.
- Instead of giving direct answers, use guiding questions, for example:
 1. “How does the platform evaluate this statement?”
 2. “Is the statement marked as completely false or misleading?”
- Emphasize that the goal is to identify one clearly false statement, not to debate opinions.
- After completion, it is recommended to include a short reflection on how fact-checking supported decision-making.

How to use this guide

Methodological procedure



Manipulation techniques (4)

Brief description of the puzzle

Students work with six cards containing definitions and examples of manipulation techniques. A hint card lists the techniques along with numerical labels (one to six). The students' task is to correctly match each card to the corresponding technique and arrange them in the specified numerical order to assemble a cut-up QR code. After scanning it, they are directed to a webpage displaying a number, which serves as one part of a four-digit code for the next stage of the game

Objectives of the task

- Develop the ability to identify and name manipulation techniques in media and public discourse.
- Deepen understanding of concepts such as generalization, conspiracy framing, whataboutism, appeal to fear, false authority, and straw man technique.
- Connect theoretical definitions with concrete examples.
- Promote collaboration, argumentation, and logical reasoning within a group.

Expected student reactions

- Students may initially struggle to distinguish between similar techniques (e.g. generalization vs. straw man).
- Discussion may arise about which feature of an example is decisive for classifying the technique.

How to use this guide

Methodological procedure

- Some students may try to assemble the QR code by trial and error without fully understanding the content.
- After correctly assembling the QR code, students gain confidence in recognizing manipulative patterns.

Teacher tips

- Do not intervene if students are actively discussing and arguing while matching the techniques.
- Provide support if the group approaches the task purely technically (assembling the QR code without analyzing the content).
- Use guiding questions, for example:
 1. "What is the main strategy of the author in this example?"
 2. "Is the goal to evoke emotion or to redirect attention?"
- Remind students that the correct order of the cards results from understanding the techniques' meanings, not from chance.
- After completing the task, recommend a short reflection: where do they encounter these techniques in real media or on social networks?



Fake photos (3)

Brief description of the puzzle:

Students work with six photographs, only one of which is authentic, while the others are fake (edited, taken out of context, or generated).

How to use this guide

Methodological procedure

Students are provided with a hint card containing points to help them detect fake photographs (e.g., visual inconsistencies, context, source, and technical details). The task is to identify the one authentic photograph, which allows them to continue in the escape game activity.

Objectives of the task

- Develop visual and media literacy, especially the ability to critically evaluate visual content.
- Teach students to identify typical signs of fake or manipulated photographs.
- Raise awareness that visual content can also be misleading or deceptive.
- Promote analytical thinking, collaboration, and group discussion.

Expected student reactions

- Students tend to rely initially on intuition (“it looks real”) rather than on systematic analysis.
- Different opinions may emerge within the group based on personal impressions.
- Some students may overestimate the technical quality of a photograph and underestimate the importance of context.
- After identifying the correct photograph, students realize which clues were decisive.

How to use this guide

Methodological procedure

Teacher tips

- Do not intervene as long as students are actively using the hint card and justifying their decisions.
- Provide support if the group relies solely on impressions rather than specific features of the photographs.
- Use guiding questions, for example:
 - “What in the photograph seems suspicious and why?”
 - “Do we have information about the origin or context of this photograph?”
- Remind students that the goal is to identify the one authentic photograph, not just to label the fake ones.
- After completing the task, recommend a short reflection on which signs of fake images they will pay attention to in the future.



Encryption **(arrange from large to small)**

Brief description of the puzzle

Students work with a hint card containing a riddle from which they must deduce the method for decoding the encrypted text (book cipher). They are provided with four cards: one with a text thematically focused on disinformation and three cards with numerical data. If necessary, they may use a mobile device to identify the principle of the book cipher (the first number indicates the line of the text, the second the word in the line, and the third the letter in the word). After correctly decoding the message, they obtain the instruction: “arrange from large to small,” which serves as the next step in the escape room activity.

How to use this guide

Methodological procedure

Objectives of the task

- Develop logical and deductive thinking through working with a cipher.
- Strengthen the ability to work with text as a source of information and analyze it accurately.
- Support digital literacy, especially the meaningful use of mobile devices when solving tasks.
- Connect technical skills (encryption) with content focused on the critical perception of disinformation.
- Develop cooperation and communication within a group.

Expected student reactions

- Students may initially feel uncertain about how to approach the cipher and how to interpret numerical data.
- A discussion may arise about the meaning of individual numbers and their relationship to the text.
- Some students may make minor mistakes when counting lines, words, or letters.
- After deciphering the text, students have an “aha moment” when they realize the result is an instruction rather than the code itself.

Teacher tips

- Do not intervene as long as students are actively trying different approaches and discussing the cipher's principle.
- Provide help only if students are unable to identify the type of cipher or repeatedly apply incorrect logic.

How to use this guide

Methodological procedure

- Instead of providing a direct explanation, guiding questions should be used, for example:
 1. "How can a text serve as a key to numbers?"
 2. "What might individual numbers in the cipher represent?"
- Emphasize the need for precision when working with text (lines, words, letters).
- After completing the task, it is recommended to include a brief reflection on how a similar encryption principle can be used to hide or reveal information in the online environment.

4. End of the game

After correctly arranging the 4-digit code: 9643, students open the locked box, where they find a QR code:



SCAN ME

After scanning the QR code with their mobile phones, students are redirected to the website of the Department of Journalism and New Media, where they are addressed by a hacker in a video message:

https://www.youtube.com/watch?v=3FaHu_LbEC4

There is also an option to download a Certificate of Successful Completion (as a graduate of the workshop on disinformation) from the website.

ESCAPE GAME

THE BOX OF TRUTH

- critical thinking
- media literary
- teamwork
- manipulative techniques
- disinformations
- fact-checking

ESCAPE GAME MATERIALS

ESCAPE GAME

THE BOX OF TRUTH

ESCAPE GAME MATERIALS

**Digital and Media Literacy
Lecture**



DIGITAL LITERACY

The background is a dark blue gradient with various futuristic digital motifs. A central focus is a hand with a glowing blue digital interface overlaid on it, showing a circular network of nodes and arrows. To the left, there are circuit-like lines and hexagonal patterns. On the right, there are more complex network diagrams and a lightbulb icon. The overall aesthetic is high-tech and digital.

CRITICAL THINKING

What is it?

It is the ability to analyze information (break it down into parts) and evaluate it (determine whether it is good or bad, true or false), instead of simply accepting it.

How to think critically?

1. We ask questions: Who is saying this? What is their goal? What evidence do they have?
2. We verify by looking for other sources.
3. We form our own opinion.

Why is it important?

It helps us make good decisions, protects us from manipulation, and enables us to better understand the world.



WHAT IS MISINFORMATION?



**MISINFORMATION INFLUENCES OUR DECISIONS,
SPREADS FEAR, AND DIVIDES SOCIETY.**

MISINFORMATION


Misinformation is false or inaccurate information that is shared without the intention to deceive or cause harm. People spreading misinformation often believe the information is true. It can result from misunderstanding, mistakes, or sharing unverified content.

DISINFORMATION

Disinformation is false information that is deliberately created and shared with the intention to mislead, manipulate, or deceive people. It is often used to influence public opinion, create confusion, or achieve political, ideological, or financial goals.

MALINFORMATION

Malinformation is information that is based on reality but is shared intentionally to cause harm, manipulate, or damage a person, organization, or group. This may include leaking private information, sharing content out of context, or using truthful information in a misleading way.



WHAT IS MISINFORMATION?

**MISINFORMATION INFLUENCES OUR DECISIONS,
SPREADS FEAR, AND DIVIDES SOCIETY.**

DEEPPAKES

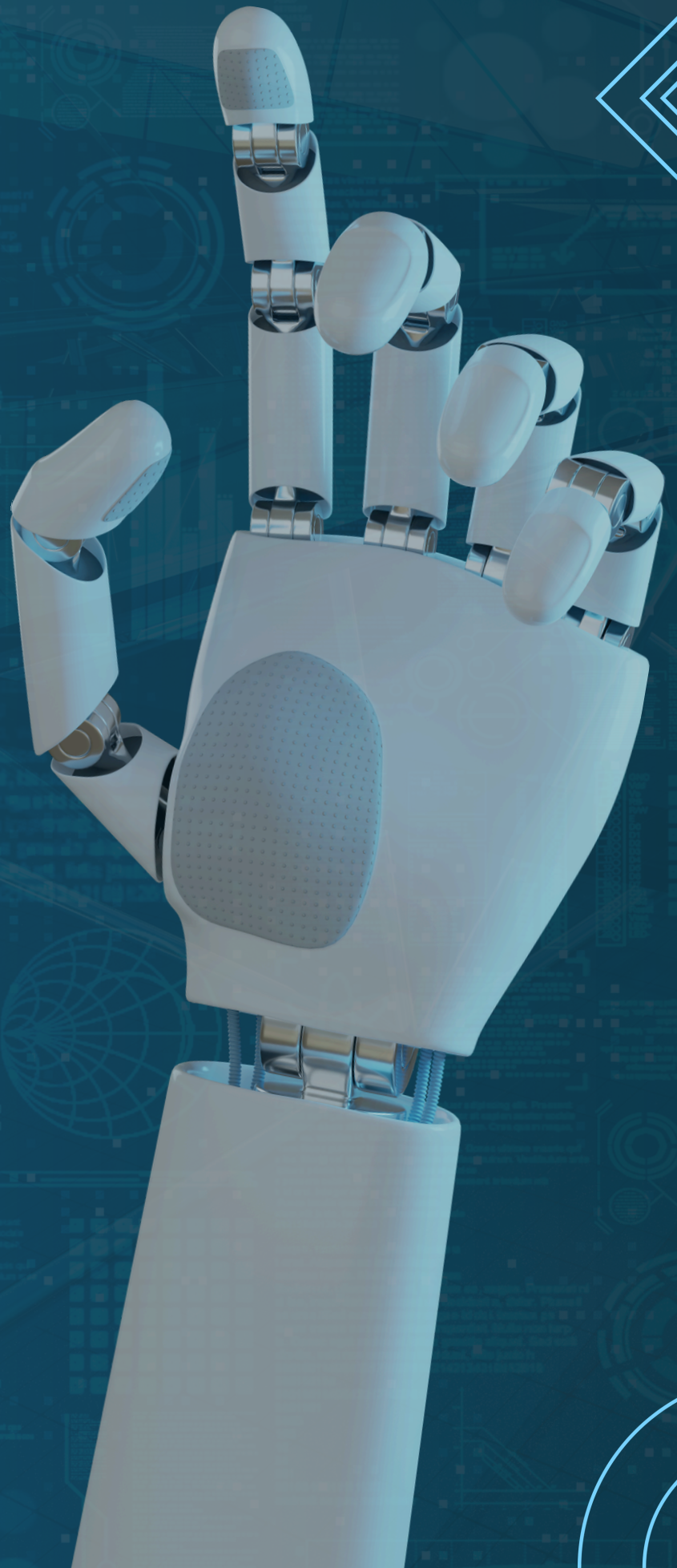
A deepfake is synthetic media (video, image, or audio) created or manipulated using artificial intelligence to realistically show events, speech, or actions that never actually happened. It is often used to impersonate real people in a highly convincing way.

FAKE NEWS

Fake news refers to false or misleading information presented as real news, often created to deceive readers, influence opinions, or generate clicks and advertising revenue. It usually imitates the style of legitimate journalism.

HOAX

A hoax is a deliberately fabricated story, message, or claim that is intended to trick people into believing something false. Hoaxes are often spread through social media, emails, or websites and can target emotions such as fear or curiosity.



WHAT IS THE DIFFERENCE BETWEEN A HOAX AND DISINFORMATION?

Disinformation

It usually has a serious political or financial purpose (e.g. influencing elections or making money). It involves the intentional spread of false information.

Hoax

Originally, a hoax was often intended as a joke or a false alarm designed to cause panic, confusion, or simply deceive people for amusement (e.g. a message claiming that “the world will end tomorrow”). Today, however, the term often overlaps with disinformation and is frequently used as its synonym..

MANIPULATION TECHNIQUES

GENERALIZATION



Saying that all people in a group are the same, even though it is not true.

“All politicians lie and steal.”

WHATABOUTISM



When someone avoids addressing a wrongdoing by changing the topic to someone else's mistake: “And what about them/you?”

Question: “Why is this government increasing the debt?”

Answer: “What about the previous government? They borrowed even more!”

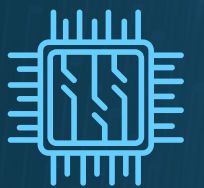
STRAW MAN FALLACY



We do not attack the real argument, but instead create a simplified (and often distorted) version of the opponent's argument, which is easier to defeat. Opponent: “We should invest more money in science.”

Straw man: “So you want to shut down all schools and give all the money to scientists? That's absurd!”

CONSPIRACY THEORY



Creating the idea that a secret plan (a conspiracy) exists behind an event, carried out by powerful people (elites or secret groups) who want to harm ordinary people.

“There is no such thing as climate change—it is just a fabricated lie to allow wealthy people to control the world.”

MANIPULATION TECHNIQUES

AD HOMINEM



We do not attack the argument or opinion itself, but instead attack the person directly (their appearance, education, age, past, etc.). The goal is to discredit the person so that we do not have to respond to their argument.

Argument: "We should increase taxes for the rich."

Ad hominem attack: "Why should we listen to this person? They do not even have a high school diploma and look like a fool!"

RED HERRING



When we cannot answer a difficult question, we quickly change the topic to something unrelated to the original issue, but emotionally appealing.

Question: "How will you solve the problem of corruption in education?"

Red herring: "What matters more is that our hockey players finally won the championship! That is a real success for our country!"

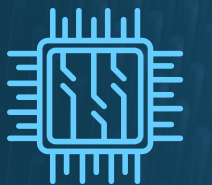
APPEAL TO FEAR



Instead of using logical arguments, we use strong language that creates fear and anxiety in order to make people act.

"If we do not vote for this party, chaos will follow, everyone will lose their jobs, and our children will suffer!"

FALSE AUTHORITY



We use the opinion of a famous person (celebrity, athlete, or a so-called "expert") instead of real expert evidence.

"This famous actor says this special pill cures the common cold, so it must be true." (Even though the actor is not a doctor.)

MANIPULATION TECHNIQUES

CHERRY-PICKING“



When we have many facts or statistics, but we only present the ones that support our opinion, while ignoring all evidence that suggests the opposite.

A study says that 10% of people have no problems after taking the pill, but 90% experience problems.

Cherry-picking: “This pill is completely safe! Look, 10% of people are fine—that’s a great result!” (Ignoring the 90% who had problems.)

FALSE DILEMMA



It is a trick where someone presents only two (often extreme) options, even though in reality there are many other possible solutions or viewpoints.

“Either we protect the economy, or we protect nature. There is no third option.” (Ignoring the fact that compromises are possible.)

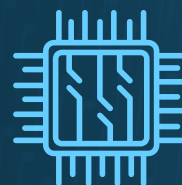
SLIPPERY SLOPE



It claims that one small step (A) will inevitably lead to a large and catastrophic outcome (Z), even though there is no logical evidence for such a chain of events.

“If we let children eat ice cream before lunch (A), soon they will only eat sweets (B), and eventually they will become bad, disobedient, and obese adults (Z).”

APPEAL TO MAJORITY



We say that something is true, good, or correct just because many people (the majority or everyone in our group) believe it or do it.

“This phone is the best in the world because everyone in our town has it. You should get it too.” (The phone may not actually be the best, but it is popular.)



HOW TO DETECT DISINFORMATION?

(CHECKLIST)

1. SOURCE:

Who wrote it? Is it a reliable news outlet, academic source, or just a personal blog? Check whether the author is identifiable, has verifiable credentials, and is linked to a trustworthy institution. If the author or platform cannot be clearly identified, or if they lack credibility, treat the information with caution.

2. DATE:

Is the information up to date? Could it be an old story being presented as new? Check the publication date and whether the content has been recycled or republished with a new headline or context.

3. EMOTIONS:

Does the message trigger strong emotions (anger, fear, shock)? This is often a sign of manipulation. Pause and verify the information from other reliable sources before sharing or reacting.

4. CHECKING:

Look for at least 2–3 other reliable sources that confirm the same information.

FACT-CHECKING WEBSITES

Fact-checkers

Fact-checkers are independent journalists who verify information. If a fact-checking organisation has identified a report as false, it should not be considered reliable or shared as true.

Demagog.sk

It is the main Slovak fact-checking platform. It verifies factual statements (numbers, data, events) made by politicians and other public figures in public discourse (e.g. television debates, interviews, and public statements).

AFP Factuel

The fact-checking section of Agence France-Press (AFP), one of the world's largest international news agencies. It verifies current disinformation and hoaxes circulating on social media platforms (Facebook, Telegram, TikTok). It covers topics ranging from health and politics to wars and conflicts.

Snopes.sk

Snopes.com is the oldest and one of the best-known American fact-checking websites. It primarily debunks urban legends, hoaxes, and conspiracy theories (e.g., "Is it true that Coca-Cola contains insects?") and is published primarily in English.



HOW TO DETECT AI-GENERATED PHOTOS AND VIDEOS?



DETAILS:

Look for inconsistencies in details: strange-looking hands and fingers, distorted teeth, ears, or glasses. These small errors are common in AI-generated images. Also check for unnatural lighting, blurry backgrounds, or objects that don't fit the scene realistically.



BACKGROUND:

Is the background blurry or are there repeating patterns in it? These can be signs of AI-generated content, especially when textures look unnatural or inconsistently structured. In real photos, backgrounds usually contain more random variation and realistic depth.



LIGHT:

Is the lighting and shadows in the image illogical or inconsistent? This can indicate that the image is AI-generated or manipulated. In real photographs, light sources usually create shadows that follow a coherent and physically plausible direction.

There are online tools (e.g. AI detection tools) that can help with this. These tools work by searching for digital fingerprints—subtle pixel-level inconsistencies that are invisible to the human eye but can be detected by algorithms. For example:

- Hive Moderation
- AI or Not
- Illuminarty
- WasItAI



ESCAPE GAME

THE BOX OF TRUTH

ESCAPE GAME MATERIALS

Printable Materials
for the Puzzles









Escape Game: The Truth Box

Your editorial office is in danger. In front of you is a locked box that hides the identity of the hacker - the originator of the blackmail. Your task is to unlock it and find out his/her name.

How to do it?


Get a 4-digit code.

You will get the code by solving 4 puzzles.
Each puzzle will reveal one digit of the code.

Envelopes with tasks:

There is a large envelope next to the box.

Inside you will find:

5 smaller envelopes - 4 marked with a question mark (?),
1 marked with a lock (.

Tags with the name of your editorial office - attach them.

Tools that you will need during the game.

Solve puzzles

Envelopes marked with a question mark (?) contain puzzles.

Find the correct sequence of digits.

After solving all 4 puzzles, open the envelope marked with a lock (.

Inside is an encrypted message that will reveal the correct sequence of digits.

Unlock the box

Enter the correct 4-digit code in the order from the cipher

If you did it correctly, the box will open and reveal the hacker's name.





True or False?

Instructions: How to find out if an article is true?

Your team has several articles in front of you. Among them is one piece of disinformation. Your task is to uncover it!

Read each article carefully:

Focus on the title, author, source, content, and tone of the article.

+ **Verify the source:**

Check if the article cites a specific and existing source (e.g., the name of a study, institution, university, website).

Search for this source on the Internet - use keywords, titles, or names of authors.

If the source does not exist, is of dubious origin (e.g., a conspiracy website), or contains nothing credible, it is probably disinformation.

Watch out for warning signs of disinformation:

Overly shocking or emotional claims without evidence.

Missing or unverifiable data, figures, and facts.

Non-existent or suspicious organizations and institutions.

Citing "studies" without references that cannot be found.

Language like: "the state is hiding it", "the truth they don't want to tell you", "the mainstream is lying", etc.

Compare with trusted sources:

Try to compare articles with information from verified media (e.g., Denník N, BBC, SME, Euractiv, WHO, university websites).

Be careful if the information is claimed by only one unknown website that no one else cites.

Hint: Some answers are hidden in the details.

*Pay close attention to the facts,
especially those that can be counted.*





True or False?

Technology

Artificial intelligence helps detect early stages of Alzheimer's disease

Researchers from MIT, in collaboration with Massachusetts General Hospital, have introduced a new artificial intelligence algorithm that analyzes patients' speech and identifies subtle language changes associated with Alzheimer's disease. In a study published in Nature Communications, the AI achieved 87% accuracy in recognizing early symptoms. The technology uses deep neural networks trained on thousands of hours of conversations. Experts believe this tool could significantly improve early diagnosis and, in turn, improve patients' quality of life.

Source: MIT News





True or False?

Health

Traces of pharmaceuticals found in drinking water raise concerns

According to a report by the World Health Organization, trace amounts of pharmaceutical substances, including painkillers, antibiotics, and hormones, have been detected in drinking water in several countries. The concentrations are extremely low and do not pose an immediate risk to human health. However, experts warn that the long-term effects of exposure and environmental factors remain poorly understood. These substances mainly enter water supplies through wastewater, as conventional treatment plants cannot completely remove all drug residues. The WHO recommends improving wastewater treatment and monitoring systems.

Source: World Health Organization (WHO)





True or False?

Politics

Estonia continues to use online voting in national elections

Estonia is the only country in the world that allows citizens to vote online in national elections.

According to the Estonian government, the e-voting system has been in use since 2005 and enables voters to cast their ballots securely online using digital ID cards. The system is designed to increase convenience and participation, especially for citizens living abroad. While supporters highlight its efficiency and transparency, critics and cybersecurity experts continue to debate potential security risks and the difficulty of fully verifying electronic voting systems.

Source: BBC News





True or False?

Environment

Trees exchange information with each other through an underground network of fungi

Scientists from the University of Zurich have confirmed the existence of the so-called “Wood Wide Web” — an underground network of mycorrhizal fungi that connects tree roots and allows them to communicate. Through this network, trees exchange nutrients, warn of pests, and even “help” weaker individuals. Research shows that forests function as complex ecosystems with a high degree of cooperation. This discovered form of “communication” changes the view of forests as isolated trees and supports efforts to protect them.

Source: BBC Earth





True or False?

Space

James Webb Space Telescope detects water vapor in exoplanet atmospheres

Scientists working with the James Webb Space Telescope (JWST) have confirmed the presence of water vapor in the atmospheres of several exoplanets orbiting distant stars. According to NASA, the telescope's advanced infrared instruments allow researchers to analyze the chemical composition of these atmospheres with unprecedented precision. While the detection of water does not mean the planets are habitable, it represents a major step forward in the search for environments that could support life. Researchers emphasize that further observations are needed to better understand these distant worlds.

Source: NASA





True or False?

Health

New research suggests that vitamin B17 can kill cancer cells

According to a study published in the European Journal of Natural Oncology, scientists at the Institute of Alternative Medicine in Zurich have discovered that vitamin B17 (also known as laetrile) selectively kills cancer cells without harming healthy tissue. The research was conducted on a sample of 117 patients, divided into 9 groups based on tumor type, of whom 72.9% experienced significant tumor shrinkage after 9 weeks of treatment. The study authors claim that B17 could represent a revolutionary alternative to chemotherapy, especially for difficult-to-treat forms of cancer.

Source: [www.ejno-health.org/study-b17-cancer-breakthrough-](http://www.ejno-health.org/study-b17-cancer-breakthrough-09)

09





Hunting for the source

What is a fact-checking portal, and how to work with it?

A website or project that verifies the truth of publicly disseminated claims - for example, statements by politicians, articles on the Internet, viral news, or various "sensations" that circulate on social networks. These portals use verified facts, scientific studies, and trustworthy sources to determine whether a given claim is true, false, misleading, or unverifiable.

How do I know that a portal is serious?

- it cites sources and evidence for its claims,
- it has a transparent methodology - i.e., a description of how it works and on what basis it evaluates information,
- it is independent and impartial - it does not spread political or ideological propaganda,
- It is part of international verification networks (e.g., IFCN - International Fact-Checking Network).

Examples of trustworthy portals:

AFP Fact Check

Snopes.com

How to work with a fact-checking portal?

1. Enter keywords from the claim into the search on the site (e.g., "5G cancer").
2. Review the results and their rating - they are usually marked as true, false, misleading, etc.
3. Review the justification - you will usually also find links to scientific studies or experts.
4. Compare several portals if you are not sure.





Hunting for the source

Statement:

“Businesses can ask customers if they have been vaccinated against COVID-19 without legal repercussions.”

Fact-check portal:

 Snopes.com



SCAN ME





Hunting for the source

Statement:

“Elon Musk posted a poll on X asking whether it's time to create a new political party in America that actually represents the 80% in the middle.”

Fact-check portal:

 Snopes.com



SCAN ME





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Hunting for the source

Statement:

"The photo of President Zelensky in a Nazi uniform is doctored."

Fact-check portal:

 AFP Fact Check



SCAN ME





Hunting for the source

Statement:

"The claims on the popular 'good news' list about COVID-19 — including recoveries, drops in cases in some countries, and advances in testing and vaccine research — were generally supported by credible news reports."

Fact-check portal:

 Snopes.com



SCAN ME





Hunting for the source

Statement:

“The vast majority of scientists agree that greenhouse gas emissions caused by human activity lead to global climate change and rising global temperatures.”

Fact-check portal:

 AFP Fact Check



SCAN ME





Hunting for the source

Statement:

"According to research from NaturalCureWorld.org, mRNA vaccines are active in the body even after 5 years and cause genetic changes."

Fact-check portal:

 AFP Fact Check



SCAN ME





1. GENERALIZATION

2. CONSPIRACY THEORY

3. WHAT'ABOUTISM

4. APPEAL TO FEAR

5. FALSE AUTHORITY

6. STRAW MAN



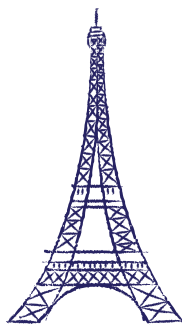
Manipulation techniques

Definition:

A logical and argumentative fallacy in which a conclusion is drawn about an entire group from one or a few cases without sufficient evidence. It often leads to stereotypes and biased thinking.

Example:

“I met three arrogant Frenchmen - that just proves that all Frenchmen are arrogant.”





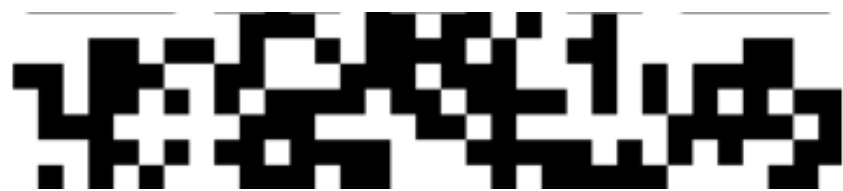
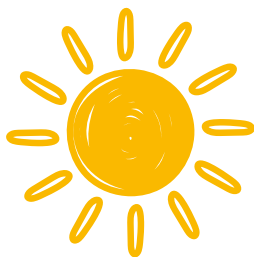
Manipulation techniques

Definition:

A way of interpreting events that assumes that a hidden group with secret intentions is behind them, while ignoring proven facts. It usually uses assumptions, selective evidence, and emotional appeals.

Example:

“Global warming doesn't exist; it's just climate scientists and governments manipulating data to control the world.”





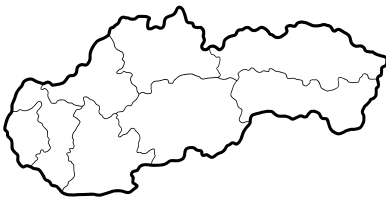
Manipulation techniques

Definition:

A manipulative rhetorical technique that deliberately diverts attention from a criticism or issue by pointing to another, often unrelated, issue. Its purpose is to relativize or weaken the original objection.

Example:

“Why are you addressing corruption in Slovakia when politicians in the US are also corrupt?”





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Manipulation techniques

Definition:

A fallacy that uses fear-mongering as a means of persuasion rather than rational reasons. This form of communication often ignores evidence and exaggerates threats.

Example:

“If you choose this political party, there will be war, and we will all lose our homes!”





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Manipulation techniques

Definition:

An argumentative fallacy where a claim is based on the opinion of a person who lacks expertise in the field, but whose opinion is nevertheless presented as credible.

Example:

“Actor X recommends detoxifying the liver with this herbal treatment – would he be lying?”





Manipulation techniques

Definition:

This is a technique in which someone intentionally distorts or simplifies an opponent's argument to make it easier to refute. Instead of responding to the real claim, they create a caricature of it and attack this distorted version.

Example:

Person A: "I think we should regulate misinformation on social media more."

Person B: "So you want to censor free speech and ban people from speaking their minds?"





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Manipulation techniques





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Manipulation techniques

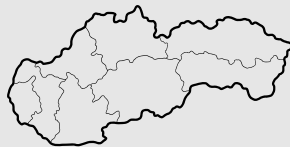
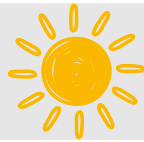




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Manipulation techniques





Fake photos

How to spot a fake photo?

Composite with incorrect perspective

If an image mixes elements that do not match in scale, angle, or depth of field (e.g., a small foreground and an unrealistically large background), it may be a poorly composed composite.

Oversaturation and noise/artifacts

Oversaturated colors, unnatural skin or clothing tones, and digital noise can indicate a generated or heavily edited image. This is often a visual “effect” meant to cover up flaws.

Inconsistent or double shadows

In a realistic photo, the light comes from one direction. If the subject casts shadows in multiple directions or the shadows do not make sense, it is probably a manipulation.

Cloned or duplicated object

If the same object (e.g., bike, person, tree) is repeated multiple times in the same photo at the same angle or position, it was probably copied using the clone tool.

Mismatched reflection

Reflections in water, windows, or glass should match what is actually in front of them. If you see a reflection that does not match the surroundings, it is a fake or a bad render.





Fake photos





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Fake photos





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Fake photos





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Fake photos





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Fake photos

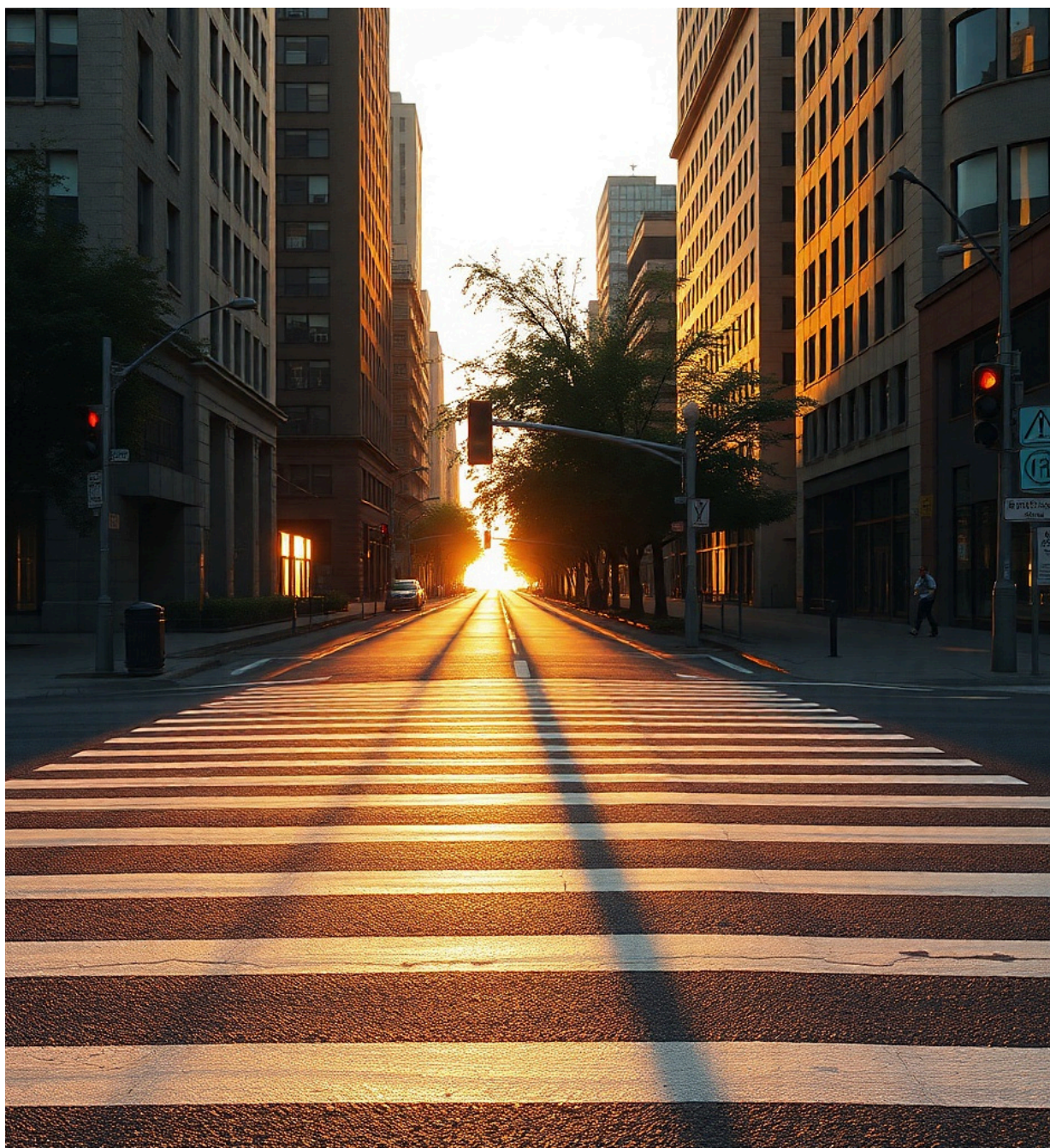




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Fake photos





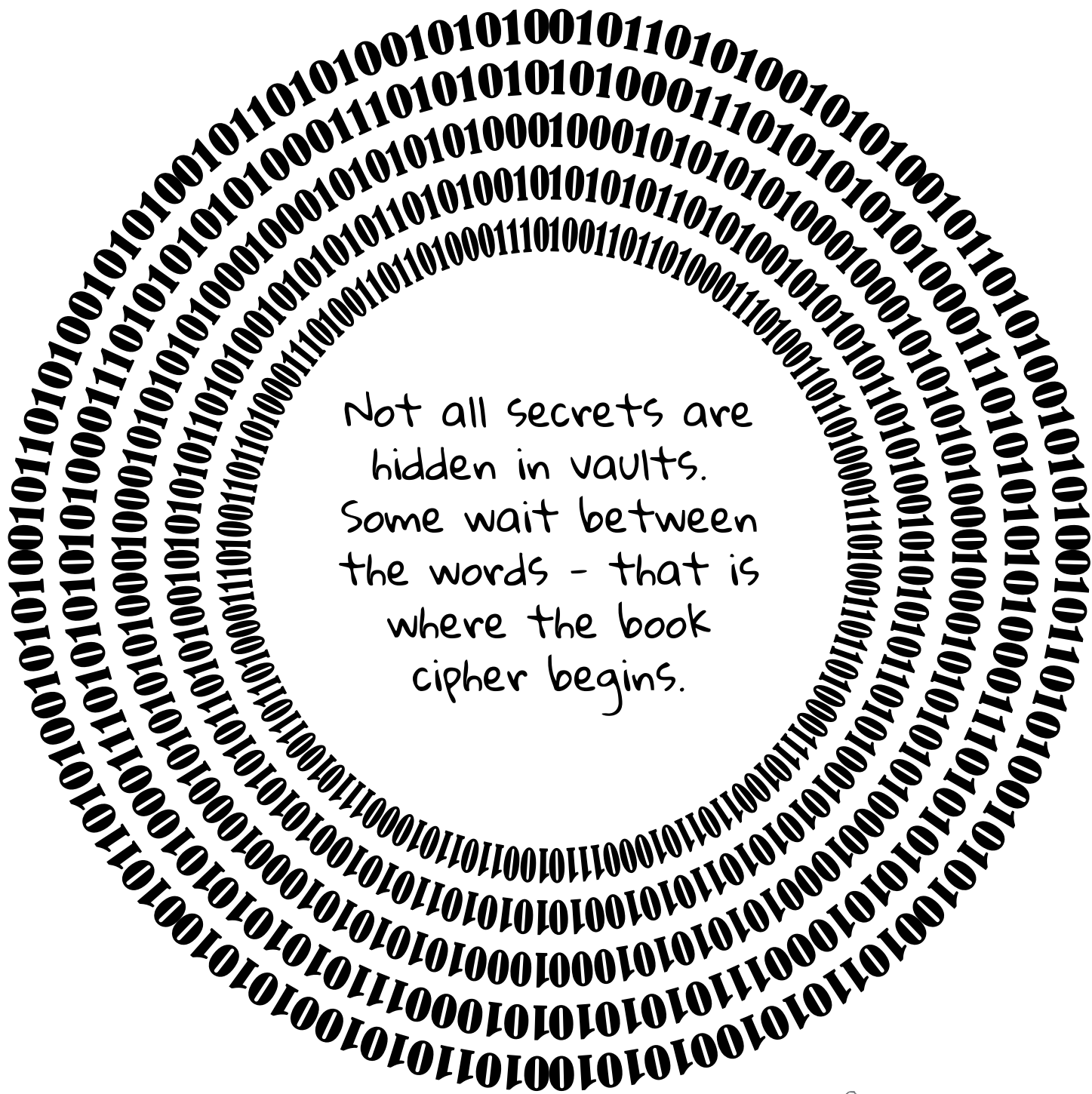
In today's information-rich world, it is important to be able to fact-check. It is not enough to just believe what you see or read – you need to think about where the information comes from, who's spreading it, and whether there are credible sources for it. If we can tell what's evidence and what is just unsubstantiated claims, we will not be so easily fooled.

It is equally important to understand the manipulation techniques often used in disinformation. If you recognize these techniques, you can filter them out.

Photos can also be misleading. Modern tools make it easy to create or edit an image to make it seem credible. Distinguishing between a real shot and a fake requires a lot of attention – but it can be learned.

Fact-checking, recognizing manipulation tricks, and spotting fake photos are important skills today. They help us think critically, make decisions based on the truth, and not be manipulated – whether in the media, online, or especially in real life.





Not all secrets are
hidden in vaults.
Some wait between
the words - that is
where the book
cipher begins.

BOOK
CIPHER





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3 - 1 - 3

5 - 3 - 7

11 - 4 - 1

17 - 1 - 3

20 - 3 - 4

14 - 7 - 4

2 - 9 - 1





1 - 3 - 3

4 - 3 - 5

12 - 5 - 1

19 - 5 - 2

21 - 5 - 7

6 - 1 - 2

13 - 6 - 5

15 - 2 - 7

7 - 3 - 2





9 - 4 - 6

16 - 4 - 2

10 - 2 - 10

18 - 4 - 1

22 - 4 - 7

8 - 1 - 4

13 - 3 - 2





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Arrange from
largest to smallest





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SCAN ME

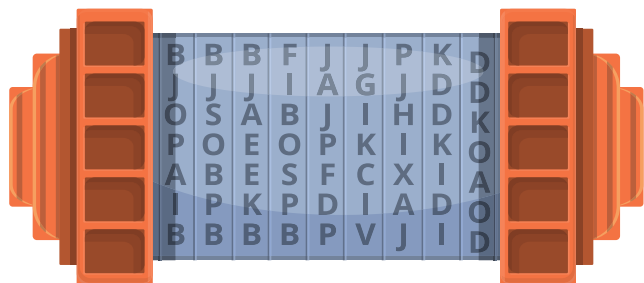




Bonus task

Story

While investigating a digital attack on the school's information system, you come across a suspicious message. It appears to have been left by a hacker. His goal is to spread a fake message that is intended to cause panic among students. There is an encrypted text on the table and a note next to it. The instructions are always hidden in the puzzles.



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